



IB/2004/050279

# Sertifikaat

REPUBLIEK VAN SUID-AFRIKA

PATENT KANTOOR  
DEPARTEMENT VAN HANDEL  
EN NYWERHEID

# Certificate

REPUBLIC OF SOUTH AFRICA

PATENT OFFICE  
DEPARTMENT OF TRADE AND  
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Hiermee word gesertifiseer dat  
This is to certify that

the documents annexed hereto are true copies of:

Application forms P.1 and P.2, provisional specification of South  
African Patent Application No. 2003/2148 as originally filed in the Republic of  
South Africa on 19 March 2003 in the name of PHICON INVESTMENT  
HOLDINGS (PTY) LTD for an invention entitled: "ASSEMBLING SYSTEM".

Geteken te  
Signed at  
**PRETORIA**

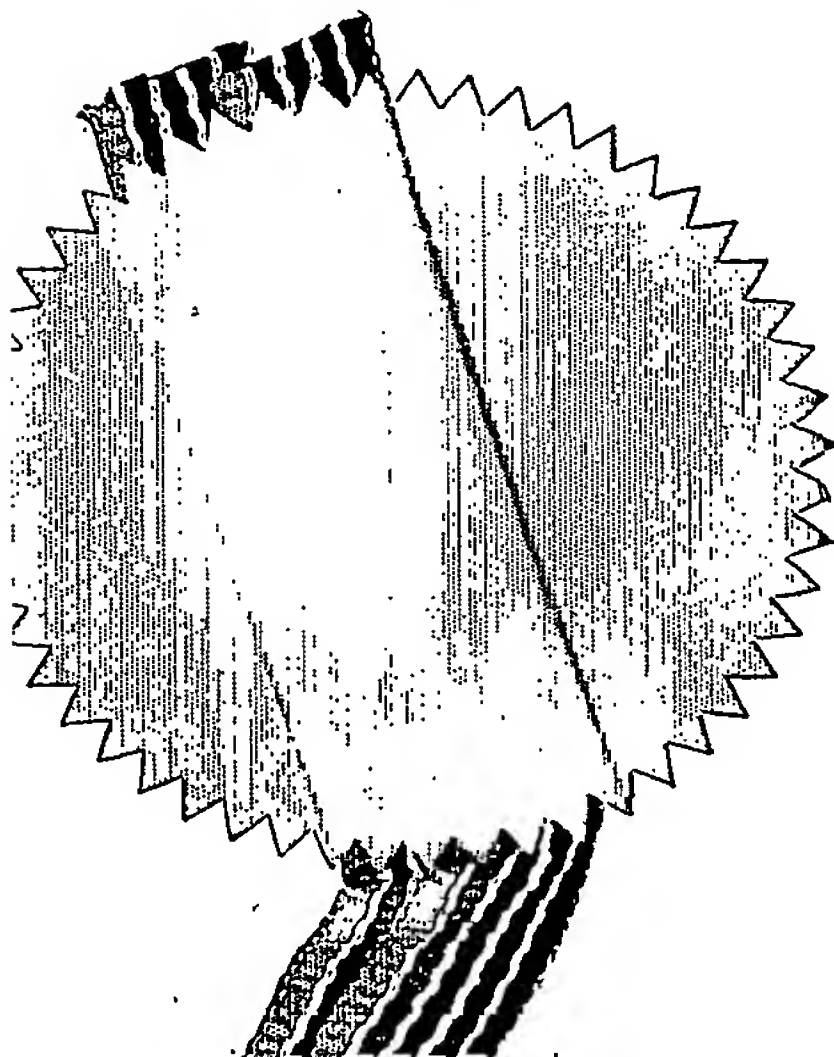
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REPUBLIC OF SOUTH AFRICA				PATENTS ACT, 1978			
REGISTER OF PATENTS							
Official Application No.:			Lodging date: Provisional			Acceptance date:	
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International Classification:			Lodging date: Complete			Grant date:	
51			22				
Full name(s) of applicant(s)/Patentee(s):							
71	Phicon Investment Holdings (Pty) Ltd						
Applicants substituted						Date registered	
71							
Assignee(s):						Date registered	
71							
Full name(s) of inventor(s)							
72	Dimitri PHILIPPOU						
Priority claimed		33	Country	31	Number	32	Date
Title of invention							
54	ASSEMBLING SYSTEM						
Address of applicant(s)/patentee(s)							
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Patent of addition No.		74	Date of any change				
Fresh application based on		Date of any change					

REPUBLIC OF SOUTH AFRICA  
PATENTS ACT, 1978

# PATENT APPLICATION AND ACKNOWLEDGEMENT

[Section 30(1) - Regulation 22]

The grant of a patent is hereby requested by the undermentioned applicant on the basis of the present application filed in duplicate.

21	01	Official Application No. <b>2003/2148</b>	DrG Ref.: 610814
71	<b>Full name(s) and address(es) of applicant(s):</b> Phicon Investment Holdings (Pty) Ltd H111 Dolphin Beach Bloubergstrand 7441		
54	<b>Title of invention:</b> ASSEMBLING SYSTEM		
The applicant claims priority as set out on the accompanying form P2. The earliest priority claimed is:			
This application is for a patent of addition to Patent Application No.			21 01
This application is a fresh application (section 37) based on Application No.			21 01

## THIS APPLICATION IS ACCOMPANIED BY THE FOLLOWING:

- |                                     |     |    |  |                        |
|-------------------------------------|-----|----|--|------------------------|
| <input checked="" type="checkbox"/> | 1.  | P6 | Provisional specification                          | Pages: <b>8</b>        |
| <input type="checkbox"/>            |     | P7 | Complete specification                             | Pages: <b>2</b> copies |
| <input type="checkbox"/>            | 2.  |    | Drawings   | Sheets:                |
| <input type="checkbox"/>            | 3.  | P8 | Publication particulars and abstract in duplicate. |                        |
| <input type="checkbox"/>            | 4.  |    | Drawing for abstract                               |                        |
| <input type="checkbox"/>            | 5.  |    | An assignment of invention                         |                        |
| <input type="checkbox"/>            | 6.  |    | Certified priority document(s)                     |                        |
| <input type="checkbox"/>            | 7.  |    | Copy of Form P2 and SA Patent Application No       |                        |
| <input type="checkbox"/>            | 8.  |    | Translation of the priority document(s)            |                        |
| <input type="checkbox"/>            | 9.  |    | An assignment of priority rights                   |                        |
| <input type="checkbox"/>            | 10. | P3 | Declaration and power of attorney on form P3       |                        |
| <input type="checkbox"/>            | 11. | P4 | Request for ante-dating on form P4                 |                        |
| <input checked="" type="checkbox"/> | 12. | P2 | Register sheet (in duplicate)                      |                        |

Date: 17 March 2003

**DR GERNTHOLTZ INC**  
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FORM P6

REPUBLIC OF SOUTH AFRICA  
PATENTS ACT, 1978  
**PROVISIONAL SPECIFICATION**

[Section 30(1) - Regulation 27]

21	01	Official Application No.: <b>2003/2148</b>	DrG Ref.: 610814
22	Lodging date: 2003 -03- 19		
71	Full name(s) of applicant(s): Phicon Investment Holdings (Pty) Ltd		
72	Full name(s) of inventor(s) Dimitri PHILIPPOU		
54	Title of invention ASSEMBLING SYSTEM		

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DrG REF: 610814Spec

## TITLE OF INVENTION

Assembling system.

## FIELD OF INVENTION

5 The present invention relates to assembling systems.

More particularly, the present invention relates to assembling systems for assembling molecules.

## BACKGROUND TO INVENTION

Nanotechnology is defined as the engineering of matter at a scale  
10 approaching that of individual atoms, i.e. the branch of technology that deals with dimensions and tolerances of less than 100 nanometres, especially the manipulation of individual atoms and molecules. Developments in the field of nanotechnology enable novel practical applications thereof.

15 It is an object of the invention to suggest a novel assembling system.

## SUMMARY OF INVENTION

According to the invention, an assembling system includes

- (a) transmission means for transmitting signals;
- (b) input means for providing signals to be transmitted to the  
20 transmission means; and
- (c) molecular and/or sub-atomic and/or impulses of energy assembling means adapted to receive the signals from the

transmission means and capable of molecular and/or sub-atomic manufacturing of an object defined by the signals.

Also, according to the invention, a method for manufacturing an object, includes the steps

- 5 (a) of providing signals to be transmitted to transmission means;
- (b) of transmitting the signals transmitted to the transmission means to molecular and/or sub-atomic and/or impulses of energy assembling means; and
- 10 (c) of molecular and/or sub-atomic and/or impulses of energy manufacturing an object defined by the signals received by the molecular and/or sub-atomic and/or impulses of energy assembling means from the transmission means.

Yet further according to the invention, an assembling system includes

- 15 (a) transmission means for transmitting sub-atomic and/or atomic particles and/or impulses of energy;
  - (b) input means for providing the sub-atomic and/or atomic particles and/or impulses of energy to be transmitted to the transmission means; and
  - 20 (c) molecular and/or sub-atomic and/or impulses of energy assembling means adapted to receive the sub-atomic and/or atomic particles and/or impulses of energy from the transmission means and capable of molecular and/or sub-atomic and/or impulses of energy manufacturing of an object defined by the sub-atomic and/or atomic particles and/or impulses of energy.
- 25

Also, according to the invention, a method for manufacturing an object, includes the steps

- (a) of providing sub-atomic and/or atomic particles and/or impulses of energy to be transmitted to transmission means;
- 5 (b) of transmitting the sub-atomic and/or atomic particles and/or impulses of energy transmitted to the transmission means to molecular and/or sub-atomic and/or impulses of energy assembling means; and
- 10 (c) of manufacturing an object defined by the sub-atomic and/or atomic particles and/or impulses of energy received by the molecular and/or sub-atomic and/or impulses of energy assembling means from the transmission means.

The input means may include molecular or sub-atomic and/or impulses of energy disassembling means adapted to take apart structures, and  
15 recording structural information at each step.

The molecular and/or sub-atomic and/or impulses of energy disassembling means may be automated.

The molecular and/or sub-atomic and/or impulses of energy assembling means may be automated.

20 The disassembling means may utilise nanotechnology.

The molecular and/or sub-atomic and/or impulses of energy assembling means may utilise nanotechnology.

The transmission means may be adapted to transport molecules and/or atoms and/or sub-atomic particles and/or impulses of energy associated  
25 with the signals.

The object manufactured by the molecular and/or sub-atomic manufacturing means may be a replica or an original of a structure disassembled by the molecular and/or sub-atomic and/or impulses of energy disassembling means.

- 5 The object manufactured may be a replica or an original of a structure disassembled by the disassembling means.

The original may be reassembled.

The method may be repeated as required.

At least some of the signals may transmit data.

- 10 A time delay from transmission of signals by the transmission means and/or receipt by the molecular and/or sub-atomic and/or impulses of energy assembling means until the object is manufactured may be included.

A time delay from provision of signals to the transmission means and/or receipt by the molecular and/or sub-atomic and/or impulses of energy  
15 assembling means until the object is manufactured.

The transmission means may include the Internet, a local-area network (LAN), a wide-area network (WAN), any other networks, mobile telephone communication, land-line telephone communication, radio communication, satellite communication, radio-waves, micro-waves, electromagnetic  
20 impulses and any other forms of transmission and/or communication.

The transmission of the signals may be real-time.

The transmission of the signals may be controlled from the input means and/or from the molecular and/or sub-atomic and/or impulses of energy assembling means.

The signals may include atomic and/or sub-atomic particles and/or impulses of energy.

The signals and/or atomic and/or sub-atomic particles and/or impulses of energy may be provided to the input means in electronic form.

- 5 The signals may be directly obtained by the input means from an input image and/or object and/or human and/or impulses of energy.

The system may be utilised for business means, such as entertainment, broadcasting, education, advertising, promotions, marketing, selling and/or transportation.

- 10 The method may be utilised for business means, such as entertainment, broadcasting, education, advertising, promotions, marketing, selling and/or transportation.

The transmission means, the input means and/or the molecular and/or sub-atomic and/or impulses of energy assembling means may be remotely  
15 operated.

The transmission means, the input means and/or the molecular and/or sub-atomic and/or impulses of energy assembling means may be located far apart.

The remote operation may be via a telephone landline, the internet, a local-  
20 area network (LAN), a wide-area network (WAN), any other networks, mobile telephone communication, land-line telephone communication, radio communication, satellite communication, radio-waves, micro-waves, electromagnetic impulses and any other forms of transmission and/or communication.

In the specification hereinafter, the term molecular manufacturing is defined as manufacturing using molecular machinery, giving molecule-by-molecule control of products and by-products via positional chemical synthesis.

### **DESCRIPTION OF AN EXAMPLE**

5 The invention will now be described by way of an example.

The assembling system in accordance with the invention includes

- (a) a transmission means, which is the internet in the present embodiment example,
- (b) input means, in this example internet data/signal provider, and
- 10 (c) molecular assembling means located at a remote position from the input means.

In operation, a user located at the molecular assembling means remotely activates the input means which then transmits predetermined signals/data across the transmission means to the output means. An object  
15 manufactured by molecular manufacturing and associated with the transmitted signals/data is then manufactured at the remote position from the input means.

The input means may include molecular disassembling means adapted to take apart structures a few at a time, recording structural information at  
20 each step.

By means of the assembling means in accordance with the invention, objects may be disassembling, analysed and molecular data of the object may be transmitted over great distances and a replica and/or original of the object may take place.

**2003/2148**

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Date: 17 March 2003

  
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